

COURSES

WELDING

WLD-110 Cutting Processes

Lec 1 Lab 3 Clinic 0 Credit 2

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

Co-Requisites: None

Pre-Requisites: None

WLD-112 Basic Welding Processes

Lec 1 Lab 3 Clinic 0 Credit 2

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

Co-Requisites: None

Pre-Requisites: None

WLD-115 SMAW (Stick) Plate

Lec 2 Lab 9 Clinic 0 Credit 5

This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

Co-Requisites: None

Pre-Requisites: None

WLD-116 SMAW (stick) Plate/Pipe

Lec 1 Lab 9 Clinic 0 Credit 4

This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

Co-Requisites: None

Pre-Requisites: WLD-115

WLD-117 Industrial SMAW

Lec 1 Lab 4 Clinic 0 Credit 3

This course introduces the SMAW (stick) process for joining carbon steel components for industrial applications. Topics include padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, student should be able to safely perform SMAW fillet and groove welds on carbon steel plate with prescribed electrodes.

Co-Requisites: None

Pre-Requisites: None

WLD-121 GMAW (MIG) FCAW/Plate

Lec 2 Lab 6 Clinic 0 Credit 4

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

Co-Requisites: None

Pre-Requisites: None

WLD-131 GTAW (TIG) Plate

Lec 2 Lab 6 Clinic 0 Credit 4

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

Co-Requisites: None

Pre-Requisites: None

WLD-132 GTAW (TIG) Plate/Pipe

Lec 1 Lab 6 Clinic 0 Credit 3

This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.

